

### **DETAILED ACTION**

This application, filed on 9/28/2007, is a national stage entry of PCT/EP04/12330, filed on 10/30/2004.

### **Priority**

This application claims foreign priority to the following applications: 10353280.3, filed on 11/14/2003, and 102004021564.2, filed on 5/3/2004. Certified English translations of the foreign priority documents have been received; therefore, acknowledgement is made for foreign priority for the date of 11/14/2003.

### **Request for Continued Examination**

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 11/29/2010 has been entered.

### **Response to Remarks**

2. Claims 1, 5-6, and 12-27 are pending as of the amendments filed on 11/29/2010. Claims 12-27 are newly added, and claims 5-6 were previously withdrawn from consideration due to the restriction requirement. Claims 2-4, and 7-11 have been

cancelled by the Applicants. All rejections regarding the cancelled claims are rendered moot.

Applicants' arguments, with regards to the rejection under 35 USC 103(a) as being unpatentable over Lahm et. al. WO 2003/015518 publication, in view of Kodama et. al., US Patent No. 6,472,417, have been fully considered but are not found persuasive. The Applicants have argued that Lahm et. al. discloses an extensive number of compounds and possible combinations of compounds, and that there is no guidance to have selected the specifically recited compounds of formulas I-1-4 and I-1-9 in combination with the recited pyrethroids. The Applicants have also argued that Kodama teaches the combination of structurally different compounds with the pyrethroids, and as such one of ordinary skill in the art would have had no motivation to have combined the specific compounds of formulas I-1-4 and I-1-9 with the cited pyrethroids within the claimed ratio ranges. The examiner respectfully disagrees. Lahm et. al. teaches a pesticide composition comprising the elected compound of formula I-1-4, 3-bromo-N-[4-chloro-2-methyl-6-((methylamino)carbonyl)phenyl]-1-(3-chloro-2-pyridinyl)-1H-pyrazole-5-carboxamide, along with other pesticidal agents, such as beta-cyfluthrin, deltamethrin, and lambda-cyhalothrin. Therefore, contrary to the Applicants' arguments, it would have been prima facie obvious to one of ordinary skill in the art, at the time of the invention, to have combined the elected compound, 3-bromo-N-[4-chloro-2-methyl-6-((methylamino)carbonyl)phenyl]-1-(3-chloro-2-pyridinyl)-1H-pyrazole-5-carboxamide with one of the cited compounds, beta-cyfluthrin, deltamethrin, or lambda-cyhalothrin, with the expectation that such a combination would have been

active as a pesticide. It is acknowledged that Lahm et. al. does not explicitly teach the cited ratio range; however, Kodama et. al. teaches a synergistic combination of N-phenyl pyrazole compounds with pyrethroids, such as deltamethrin, at a ratio ranging from 10:1 to 1:10. While the N-phenyl pyrazole compounds taught in Kodama et. al. have some structural differences from the compounds of formulas I-1-4 and I-1-9, both types of compounds are pesticides. Kodama et. al. teaches that the combination of a cited pyrethroid, such as deltamethrin, exhibits a synergistic pesticidal effect in combination with another pesticide agent, within a ratio range which is cited in the instant claims. Therefore, as Kodama et. al. teaches that the pyrethroids cited in the instant claims in combination with another pesticide results in a synergistic effect, one of ordinary skill in the art, at the time of the invention, would have been motivated to have combined the elected compound of formula I-1-4 with such a pyrethroid, with the expectation that the combination would have been active as a pesticide.

The Applicants have also stated that the claimed combination of a compound of either formula I-1-4 or I-1-9 and the cited pyrethroids, deltamethrin, lambda-cyhalothrin, or beta-cyfluthrin, within the cited ratio range, exhibits a synergistic pesticidal effect. While this point has been fully considered, the examiner notes that the synergistic results presented in the specification and the declaration submitted on 10/27/2009 are not commensurate in scope with the claims. The Applicants have shown a synergistic effect for the following combinations: the elected compound, I-1-4, and beta-cyfluthrin at a ratio of 1:25; the elected compound, I-1-4 and deltamethrin, at a ratio of 1:5; and for I-1-4 and lambda-cyhalothrin at a ratio of 1:1. However, the ratio range is much broader

than the synergistic data presented, wherein the anthranilamide and the cited pyrethroids in the claimed composition are present in a ratio from 50:1 to 1:5. The Applicants have only shown synergy for one specific ratio for each of the combinations of I-1-4 and the cited pyrethroids, and therefore have not demonstrated synergy throughout the cited range. Therefore, the synergistic data provided by the Applicants is not sufficient to overcome the rejection under 35 USC 103(a). The rejection under 35 USC 103(a) as being unpatentable over Lahm et. al., in view of Kodama et. al., was proper and is maintained. For convenience, this rejection will be reiterated in the office action. New claim 25, which is directed to the combination of the compound of formula I-1-4 and lambda-cyhalothrin at a ratio of 1:1, finds support from the synergistic data provided by the Applicants, and is free of the prior art.

Claims 15, 16, 18, 19, 21-23 read on the non-elected species, the compound of formula I-1-9. Therefore, these claims are withdrawn from consideration. Claims 5-6 remain withdrawn from consideration due to the restriction requirement.

3. Claims 1, 12-14, 17, 20, and 24-27 were examined with respect to the elected species, the compound of formula I-1-4, 3-bromo-N-[4-chloro-2-methyl-6-((methylamino)carbonyl)phenyl]-1-(3-chloro-2-pyridinyl)-1H-pyrazole-5-carboxamide.
4. Claims 1, 12-14, 17, 20, 24, and 26-27 are rejected.
5. Claim 25 is objected to.

**Claim Rejections-35 USC § 103**

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

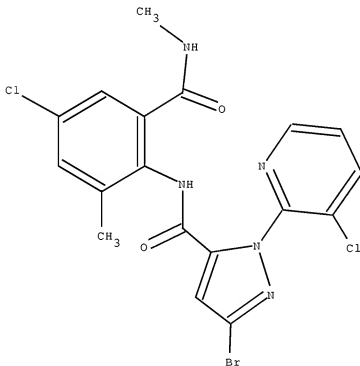
2. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

3. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

4. Claims 1, 12-14, 17, 20, 24, and 26-27 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lahm et. al. WO 2003/015518 publication, in view of Kodama et. al., US Patent No. 6,472,417 (all of previous record).

The claims are drawn to a composition comprised of a synergistically effective amount of an anthranilamide of formula (I-1-4), such as the elected compound, 3-bromo-N-[4-chloro-2-methyl-6-((methylamino)carbonyl)phenyl]-1-(3-chloro-2-pyridinyl)-1H-pyrazole-5-carboxamide, and a pyrethroid selected from betacyfluthrin, deltamethrin, or lambda-cyhalothrin, in which the ratio of 3-bromo-N-[4-chloro-2-methyl-6-((methylamino)carbonyl)phenyl]-1-(3-chloro-2-pyridinyl)-1H-pyrazole-5-carboxamide to pyrethroid compound ranges from 50:1 to 1:5. The structure of the elected compound, 3-bromo-N-[4-chloro-2-methyl-6-((methylamino)carbonyl)phenyl]-1-(3-chloro-2-pyridinyl)-1H-pyrazole-5-carboxamide, is shown below:



Lahm et. al. teaches a pesticide composition comprised of the elected claimed compound of formula I-1-4, 3-bromo-N-[4-chloro-2-methyl-6-((methylamino)carbonyl)phenyl]-1-(3-chloro-2-pyridinyl)-1H-pyrazole-5-carboxamide (p.

3, lines 24-27; p. 42, Example 11; p. 89, lines 2-4). Lahm et. al. also teaches the combination of 3-bromo-N-[4-chloro-2-methyl-6-((methylamino)carbonyl)phenyl]-1-(3-chloro-2-pyridinyl)-1H-pyrazole-5-carboxamide with additional active agents, such as the pyrethroids cyfluthrin (as well as beta-cyfluthrin), lambda-cyhalothrin, and deltamethrin (pp. 139-140, claim 1; p. 141, claim 6; pp. 141-142, claims 8-9). Lahm et. al. also teaches that 3-bromo-N-[4-chloro-2-methyl-6-((methylamino)carbonyl)phenyl]-1-(3-chloro-2-pyridinyl)-1H-pyrazole-5-carboxamide is a potent pesticide, yet provides significant protection to plants (p. 115, compound 531, p. 128, lines 7-8 and 25, p. 129, lines 10-11 and 27, p. 131, lines 20 and 22, p. 136, lines 1-8).

Lahm et. al. does not explicitly teach that 3-bromo-N-[4-chloro-2-methyl-6-((methylamino)carbonyl)phenyl]-1-(3-chloro-2-pyridinyl)-1H-pyrazole-5-carboxamide is combined with pyrethroids such as beta-cyfluthrin, lambda-cyhalothrin and deltamethrin in a ratio from 50:1 to 1:5.

Kodama et. al. teaches that the combination of N-phenyl pyrazole compounds with pyrethroid compounds, such as deltamethrin result in a synergistic pesticidal effect (Abstract; column 1, lines 27-39 and lines 43-49; column 2, lines 38-39; column 3, lines 10-11). Particularly, Kodama et. al. teaches that the ratio of N-phenyl pyrazole compound to pyrethroid, for a synergistic effect, ranges from 10:1 to 1:10 (column 3, lines 15-18), which is within the weight ratio range claimed. Additionally, Kodama et. al. teaches that other pyrethroid compounds can be used to provide synergistic combinations (column 2, lines 18-26).

One of ordinary skill in the art, at the time of the invention, would have been motivated to combine the elected compound, 3-bromo-N-[4-chloro-2-methyl-6-{{(methylamino)carbonyl}}phenyl]-1-(3-chloro-2-pyridinyl)-1H-pyrazole-5-carboxamide, with pyrethroid compounds such as betacyfluthrin, lambda-cyhalothrin, and deltamethrin, because Lahm et. al. teaches that 3-bromo-N-[4-chloro-2-methyl-6-{{(methylamino)carbonyl}}phenyl]-1-(3-chloro-2-pyridinyl)-1H-pyrazole-5-carboxamide is a potent pesticide which can be readily combined with pyrethroid agents such as betacyfluthrin, lambda-cyhalothrin, and deltamethrin, and Kodama et. al. teaches that the combination of N-phenyl pyrazole compounds with pyrethroids at a ratio from 10:1 to 1:10 results in a synergistic pesticide effect. As the N-phenyl pyrazole compounds taught by Kodama et. al., and the claimed compound, 3-bromo-N-[4-chloro-2-methyl-6-{{(methylamino)carbonyl}}phenyl]-1-(3-chloro-2-pyridinyl)-1H-pyrazole-5-carboxamide, both possess pesticidal activity, one of ordinary skill in the art would have expected success in substituting 3-bromo-N-[4-chloro-2-methyl-6-{{(methylamino)carbonyl}}phenyl]-1-(3-chloro-2-pyridinyl)-1H-pyrazole-5-carboxamide for the N-phenyl pyrazole compounds in the composition taught by Kodama et. al. Kodama et. al. teaches that N-phenyl pyrazole compounds, when combined with pyrethroid compounds, provide a synergistic pesticide. Kodama et. al. teaches that the weight ratio of N-phenyl pyrazole to pyrethroid ranges from 10:1 to 1:10, which is within the weight ratio range claimed. Furthermore, the optimization of weight ratio ranges for enhanced pesticidal effect and stability would have been considered routine and obvious to one of ordinary skill in the art, and as such it would have been obvious to combine the



compound of formula I-1-4 and pyrethroids in the ratio range as claimed, from 50:1 to 1:5. As the pesticide 3-bromo-N-[4-chloro-2-methyl-6-((methylamino)carbonyl)phenyl]-1-(3-chloro-2-pyridinyl)-1H-pyrazole-5-carboxamide is a pesticide, it would have been prima facie obvious to one of ordinary skill in the art, at the time of the invention, to combine this agent with pyrethroids such as deltamethrin, betacyfluthrin, or lambda-cyhalothrin, for a synergistic pesticide effect, in the weight ratio range as claimed.

### **Claim Objections**

6. Claim 25 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

### **Conclusion**

Any inquiry concerning this communication or earlier communications from the examiner should be directed to SARAH PIHONAK whose telephone number is (571)270-7710. The examiner can normally be reached on Monday-Thursday 7:00 AM - 5:30 PM EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Sreeni Padmanabhan can be reached on (571)272-0629. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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